FIBERROAD

UNMANAGED INDUSTRIAL ETHERNET SWITCH

Product Data Sheet

Unmanaged Industrial Ethernet Switch

The High Port Density Unmanaged Industrial Switch is a versatile and reliable solution for industrial network applications. With its easy access to Gigabit Ethernet, this switch offers seamless connectivity for demanding environments. Its robust design ensures durability in industrial and outdoor surveillance settings, making it an ideal choice for rugged conditions. The switch can be easily mounted on DIN-Rail or Wall, providing flexibility in installation options. The built-in LEDs offer convenient visual monitoring of connected devices through the RJ45 ports, enhancing ease of use and efficiency in managing network connections.

Main Features

- 10/100/1000Base-T RJ45, 1000Base-X SFP
- Full/Half-duplex self-adaptation
- MDI/MDIX automatic recognition
- Jumbo Frame up to 10K, 52G backplane bandwidth
- Operating temperature -40 to 75℃
- Wide-range DC9~56V power input
- Support power input polarity protection; no worries about the reverse connection
- All-Aluminium shell, fanless design
- Free fall, shock-proof and vibration-proof for industries
- All-aluminum Case, Compact and Fanless Design
- Plug and play, no software configuration.

This High Port Density Unmanaged Industrial Switch is equipped with the innovative feature of supporting optional AC/DC power supply. The inclusion of two independent power supply circuits ensures the continuous and reliable operation of the device even if one power supply fails, providing a seamless user experience. The hardware design boasts a fanless construction, low power consumption, wide temperature and voltage compatibility, making it suitable for use in industrial environments with stringent EMC requirements. Having successfully passed rigorous industrial standard tests, this switch is well-equipped to meet the demands of various industries such as smart grid, rail transit, smart city development, safety city initiatives, new energy projects, and intelligent manufacturing processes. Its adaptability and robust performance make it an ideal choice for organizations seeking durable networking solutions in challenging industrial settings.

Ethernet Interface			
Model	FR-7N3808	FR-7N3016	FR-7N3216
Ports	8x10/100/1000BASE-T RJ45 8x1000BASE-X SFP Slots	16x10/100/1000BASE-T RJ45	16x10/100/1000BASE-T RJ45 2x1000BASE-X SFP Slots
Port Mode(Tx)	Auto Negotiation Full/Half Duplex Mode Auto MDI/MDI-X Connection		
Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for Fast Ethernet IEEE 802.3ab Gigabit Ethernet IEEE 802.3x for flow control and back pressure IEEE802.3az for Energy Efficient Ethernet(EEE)		
Packet Buffer Size	4M		
Maximum Packet Length	10K		
MAC Address Table	8K		
Transmission Mode	Store and Forward (full/half duplex mode)		
Exchange Property	Delay time: < 7μs Switching Capacity: 52G		

Physical Characteristics	
Housing	Aluminum case
IP Rating	IP40
Dimensions	160mmx132mmx70mm
Installation	DIN Rail/Wall Mount
Weight	1200g
Environmental	
Operating Temperature	-40℃~75℃ (-40 to 167 ℉)
Operating Humidity	5%~95% (non-condensing)
Storage Temperature	-40℃~85℃ (-40 to 185 ℉)
MTBF	500,000 hours @ Telcordia SR-332 Standard
Heat Dissipation	34 BTU/h (non-PoE mode)
Cooling	Passive Cooling, Fanless Design
Noise Level	0 dBA

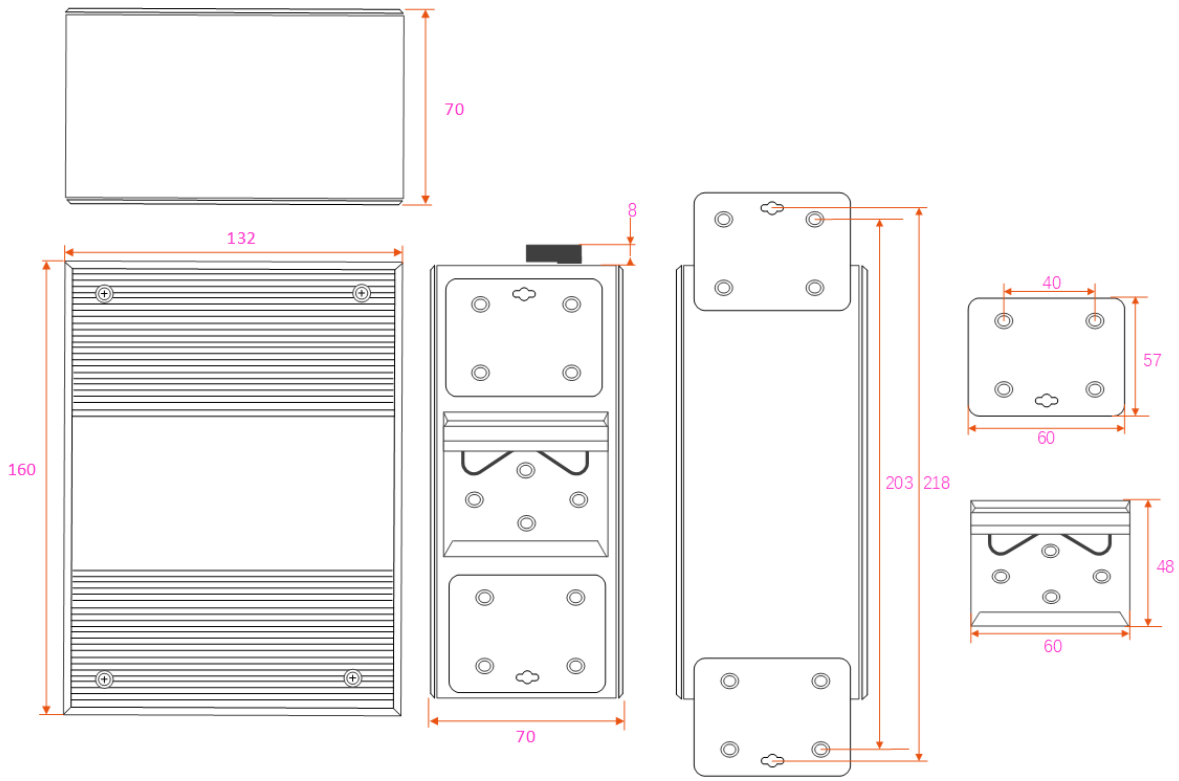
Power Supply	
Power Consumption	24 Watts Max(without PoE load)
Power Inputs	2
Input Voltage	9-56VDC,Redundant dual inputs
Connector	1 removable 6-contact terminal blocks Pin 1/2 for Power 1, Pin 3/4 for Power 2, Pin 5/6 for fault alarm
Protection	Overload Current Protection, Reverse Polarity Protection

LED	State	Description
PWR (P1&P2)	ON	Power is being supplied
	OFF	Power is not being Supplied
Link/ACT (RJ45/SFP)	ON	Port connection is active
	Blinking	Data transmitted
	OFF	Port connection is not active

Regulatory & Warranty	
Safety	IEC/EN 62368-1
EMI	EN55032 Class A, CISPR 32 FCC Part 15B Class A
EMS	EN61000-4-2 (ESD) EN61000-4-3 (RS) EN61000-4-4 (EFT) EN61000-4-5 (Surge) EN61000-4-6 (CS) EN61000-4-8 (PFMF
Shock	IEC 60068-2-27
Free Fall	IEC 60068-2-32
Vibration	IEC 60068-2-6
Environmental	RoHS
Warranty	5 Years, Details See: www.fiberroad.com

Package Contents	
Device	1x Industrial Ethernet Switch
Installation Kit	1x DIN-Rail Clip 2x Wall-Mount Kits
Documentation	1 x Quick Start Guide 1 x Warranty card 1x Product notice

Dimensions Unit: mm



Accessories(Sold Separately)

Power Supply	
FR-I-60-24	DIN-rail 24 VDC power supply with 60W/0.6A, 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature
FR-I-120-48	DIN-rail 48-58V VDC power supply with 120W/1.2A, , 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature
FR-I-240W-48	DIN-rail 48-55V VDC power supply with 240W/2A, , 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature
FR-I-480W-48	DIN-rail 48-55V VDC power supply with 480W/4A, , 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature

SFP Optical Transceiver	
FRSX-1L311C-I	1.25Gb/s 1310nm 10km SFP, wide operation temperature range of -40℃-85℃ (-40℉ - 185℉)
FRSX-1L341C-I	1.25Gb/s 1310nm 40km SFP，wide operation temperature range of -40℃-85℃ (-40℉ - 185℉)
FRSX-1L5X1C-I	1.25Gb/s 1550nm 80/100km SFP，wide operation temperature range of -40℃-85℃ (-40℉ - 185℉)
FRSX-1L3523/5323C-I	1.25Gb/s 1310nm/1550nm 20km BiDi SFP，wide operation temperature range of -40℃-85℃ (-40℉ - 185℉)

Armored Fiber Patch Cable / LAN Cable	
FRPC-A-LC	Armored LSZH LC UPC to LC UPC Duplex OS2 single mode 7.0mm for Ourdoor Application , 1-50m
FRLC-A-CAT6	Armored Cat6 Snagless shielded(SFTP) Ethernet Network Patch Cable, 26AWG, 1000Base-T, 0.5m – 3m

Precautions

To avoid damage to the equipment and personal injury caused by improper use, please observe the following precautions:

- Keep the power off during installation, wear an anti-static wrist, and ensure that the anti-static wrist is in good contact with the skin to avoid potential safety hazards.
- The switch can work normally under the correct power supply. Please confirm that the power supply voltage matches the voltage indicated by the switch.
- Before powering on the switch, please make sure that the power circuit is not overloaded, so as not to affect the normal operation of the switch and even cause unnecessary damage.
- To avoid the risk of electric shock, do not open the case while the switch is working, even if it is not charged, do not open it yourself.
- Before cleaning the switch, pull out the power plug of the switch. Do not wipe with a wet cloth. Do not use liquid to clean it.
- The equipment installed in the rack is generally from bottom to top to avoid overload installation.
- Avoid placing other heavy objects on the surface of the switch to avoid accidents.

Order Information

Model Number	10/100/1000Base-T(X), RJ45	1000Base-X Port	Optical Connector Option	Input Voltage	Operating Temp.
FR-7N3808	8	8	LC	DC9-56V	-40 to +75℃
FR-7N3016	16	/	/	DC9-56V	-40 to +75℃
FR-7N3216	16	2	LC	DC9-56V	-40 to +75℃

The information in this document is subject to change without notice. Fiberroad has made all effects to ensure the accuracy of the information, but all information in this document does not constitute any kind of warranty. Visit our website for the most up-to-date product information

For more information

For more information about Fiberroad Industrial Ethernet series products,
Visit https://www.fiberroad.com or contact your local account representative.